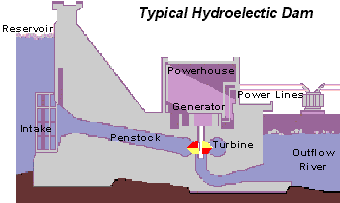
Hydro Electricity

“Hydro” means “water” and hydro electricity is made from water. People have used hydro power for more than 2,000 years. In the 1880s, scientists learned how to use a flowing river to spin turbines in a generator. The first hydroelectric power plant in the world was built on the Fox River near Appleton, Wisconsin, U.S.A in 1882. Later on people built dams to control the power of the big mountain rivers. In a dam workers can change the amount of water flowing through depending on what the weather is like and how much electricity the people need.

# Drawing of a turbine, which the water turns.Hydroelectric power: How it work?

How do we get electricity from water? Hydroelectric and coal-fired power plants produce electricity in a similar way. In both cases an energy resource is used to turn a turbine, which then turns a metal shaft in an [electric generator](http://ga.water.usgs.gov/edu/hyturbine.html), which is the motor that produces electricity. A coal-fired power plant uses steam to turn the turbine blades; but a hydroelectric plant uses falling water to turn the turbine. The results are the same they make electricity.

The main idea is to build a dam on a large river that has a large drop in elevation. The dam stores lots of water behind it in the reservoir. Near the bottom of the dam wall there is the water intake. Gravity causes it to fall through the penstock inside the dam. At the end of the penstock there is a turbine propeller, which is turned by the moving water. The shaft from the turbine goes up into the generator, which produces the power. The water continues past the propeller through the tailrace into the river past the dam.

Facts

* Hydropower is the most important and the most abundant renewable energy source in the world.
* Hydropower is the force of energy made from moving water.
* Hydropower is clean renewable energy source that doesn't pollute the environment.
* Hydropower doesn't pollute the air but construction and work of the dams can affect natural water systems and also affect wildlife.
* Hydropower needs the use of dams which can effects river ecosystems.
* Hydropower can't be used in all areas since it needs fast flowing water throughout the whole year.
* Hydropower today provides about 20 % of the world's electricity and is the main energy source for more than 30 countries.
* Hydropower is renewable energy source that doesn't cause global warming because it doesn't releases dangerous greenhouse gases.
* Hydropower produces no air pollutants that cause acid rain and smoke.
* Hydropower needs more researching in order to decrease its bad environmental impacts on river ecosystems.
* Hydropower's primary use is to produce electricity.
* Hydropower can be used anywhere in the world where there's falling water.

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